Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Currently Amended) A catheter system for positioning a stent at a vessel bifurcation, the catheter system comprising:

a catheter including a proximal end and a distal end, the catheter comprising:

a first tubular member including a proximal end and a distal end, the first tubular member defining an inflation lumen of the catheter and extending distally from the proximal end of the catheter;

a second tubular member defining a main guidewire lumen, wherein the distal end of the second tubular member is a distal end of the catheter and the proximal end of the second tubular member defines a main guidewire exit port, wherein the main guidewire lumen is configured to receive a main vessel guidewire therethrough, wherein the second tubular member is at least partially disposed within the inflation lumen of the first tubular member;

a balloon including a proximal waist coupled to the first tubular member adjacent to the distal end of the first tubular member and a distal waist coupled to the second tubular member adjacent to the distal end of the second tubular member;

a branch guidewire enclosure positioned alongside the first tubular member, wherein the branch guidewire enclosure defines a lumen configured to receive a branch vessel guidewire therethrough, the branch guidewire enclosure including a proximal end region having a proximal end, a distal end region, and an intermediate region ~~of at least 10 cm in length~~ disposed between the proximal end region and the distal end region, the proximal end of the branch guidewire enclosure defining a branch guidewire exit port; and

a stent having a lumen and a side opening in a wall thereof, the stent positioned about at least a portion of the balloon, and wherein a distal portion of the branch

guidewire enclosure is positioned through the lumen of the stent and exits at the side opening;

wherein the branch guidewire enclosure is bonded only to the first tubular member and only bonded to the first tubular member at a bond at the proximal end region of the branch guidewire enclosure, wherein the intermediate region of the branch guidewire enclosure is at least 10 cm to 100 cm in length between the bond and the balloon, wherein the main guidewire exit port and the branch guidewire exit port are located proximal of the stent and distal of the proximal end of the catheter.

2-3. (Canceled)

4. (Previously Presented) The catheter system of claim 1, further comprising a bonding material coupling the first tubular member, second tubular member, and branch guidewire enclosure.

5. (Previously Presented) The catheter system of claim 1, wherein the main guidewire exit port is positioned between 10 and 50 centimeters from the distal end of the catheter.

6-7. (Canceled)

8. (Previously Presented) The catheter system of claim 1, wherein the branch guidewire exit port is positioned between 50 and 150 centimeters from the distal end of the catheter.

9-27. (Canceled)

28. (Currently Amended) A catheter comprising:

a first catheter tube including a proximal end and a distal end;

a first distal tube having a proximal end region defining a proximal open end, the first distal tube being configured to receive a first guidewire;

a second distal tube having a proximal end region defining a proximal open end, the second distal tube being configured to receive a second guidewire;

a balloon including a proximal waist and a distal waist, the proximal waist being coupled to the first catheter tube adjacent the distal end of the first catheter tube, and the distal waist being coupled to the first distal tube adjacent to a distal end of the first distal tube;

a stent positioned about at least a portion of the balloon, wherein the second distal tube is configured to exit through a side opening in the stent; and

a bond material configured to form a bond between the proximal end region of the second distal tube and an intermediate region of the first catheter tube, wherein the proximal open end of the second distal tube remains open to define a second guidewire exit port, wherein the second distal tube is bonded to the first catheter tube only at the bond, and wherein the bond is spaced from the balloon by around 10 cm ~~or more~~ to 100 cm.

29. (Previously Presented) The catheter of claim 28, wherein the first and second guidewires are configured to exit the catheter at the proximal open ends of the first and second distal tubes.

30. (Previously Presented) The catheter of claim 28, wherein the first guidewire and the second guidewire are each less than 50 centimeters in length.

31. (Canceled)

32. (Previously Presented) The catheter of claim 28 wherein the second distal tube is detached from the first distal tube outside of the bond material.

33. (Previously Presented) The catheter of claim 28, wherein the second distal tube does not include a balloon.

34. (Previously Presented) The catheter of claim 28, wherein the proximal end region of the first distal tube is disposed at or near the intermediate region of the first catheter tube and remains open to define a first guidewire exit port..

35. (Previously Presented) The catheter of claim 34, wherein the first distal tube is at least partially attached to the first catheter tube.

36. (Previously Presented) The catheter of claim 35, wherein the first distal tube is at least partially disposed within the first catheter tube.

37. (Previously Presented) The catheter of claim 34, wherein the first guidewire exit port and the second guidewire exit port are disposed at substantially the same longitudinal position along the catheter.

38. (Currently Amended) The catheter of claim 28, wherein the bond is spaced from the balloon by approximately 30 cm ~~or more~~ to 100 cm.

39. (Previously Presented) The catheter system of claim 1, wherein the main guidewire exit port and the branch guidewire exit port are located at substantially the same longitudinal position along the catheter.

40. (Currently amended) The catheter system of claim 1, wherein the distance between the proximal end region and the balloon is approximately 30 cm ~~or more~~ to 100 cm.